

June 2024

Health control plan resources

Lead

What is lead?	Why is it a health hazard?	What are the exposure monitoring requirements?	What are the health monitoring requirements?
<p>Lead (inorganic) is a soft metallic, blue-grey heavy metal. It may be present in workplaces as a dust or fume in a pure form or in the form of an oxide or salt.</p> <p>Lead exposure sources in mining can include:</p> <ul style="list-style-type: none"> • Mineral ore extraction, processing / smelting • Gold processing • Welding, cutting, cleaning surfaces coated with lead paint. • Contaminated soil. 	<p>Lead poisoning can occur when lead is inhaled or ingested. Symptoms include but are not limited to:</p> <ul style="list-style-type: none"> • headaches • tiredness • abdominal pain • muscle pain <p>Long term exposure can lead to kidney damage, anemia, nerve damage, impairment of intellectual development and brain damage.</p>	<p>The Work Health and Safety Regulation 2017 requires a person conducting a business or undertaking (PCBU) to ensure that monitoring is carried out. Lead is an atmospheric contaminant and personal monitoring devices should be worn by workers to obtain real time exposure monitoring. The national exposure standard for inorganic lead (dust and fumes) is to 0.15 mg/m³ as an eight-hour time weighted average.</p> <p>The process of exposure monitoring can be complex, and it is recommended that expert assistance from a competent person should be sought. As</p>	<p>Health monitoring must occur for workers who carry out lead risk work. Health monitoring arrangements include the following;</p> <p>For all lead risk workers:</p> <ul style="list-style-type: none"> • before commencing lead risk work • one month after commencing lead risk work. <p>For females not of reproductive capacity and males:</p> <ul style="list-style-type: none"> • six months after the last health monitoring of the worker and if the last monitoring indicates a blood level less than 10 µg/dL (0.48 µmol/L) • three months after the last biological monitoring of the worker if the last monitoring indicates a blood lead level of 10 µg/dL (0.48 µmol/L) or more but less than 20 µg/dL (0.97 µmol/L) six weeks after the last biological monitoring of the worker if the last monitoring indicates a blood lead level of 20 µg/dL (0.97 µmol/L) or more. <p>For females of reproductive capacity;</p>

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		such a suitable qualified occupational hygienist should be used in the process.	<ul style="list-style-type: none"> • three months after the last biological monitoring of the worker if the last monitoring indicates a blood lead level of less than 5 µg/dL (0.24 µmol/L) ,, • six weeks after the last biological monitoring of the worker if the last monitoring indicates a blood lead level between 5 µg/dL (0.24 µmol/L) and 10 µg/dL (0.48 µmol/L). <p>If blood levels are elevated above the acceptable limits, these workers must be reassigned to work that does not further expose them to lead. Training and education about the effects and symptoms of lead exposure must be provided to workers who conduct lead work and women who are pregnant should not be permitted to conduct lead-based work during their pregnancy.</p>

Controls for lead

What are the controls?

Lead containing materials or products should be contained (where possible) in such a way that inhibits the production of airborne dust. Access to lead product storage areas should be limited to authorised workers and with appropriate levels of controls such as limiting the amount of time a worker is in the area, and through the provision of appropriate protective equipment. Consuming food, drink, smoking and chewing gum in lead process areas should be prohibited, with suitable crib areas provided that are not contaminated with lead product. In addition, practicing good hygiene such as workers maintaining personal hygiene such as washing hands and face before meals, showering before leaving site and the provision of uncontaminated work clothes through on-site laundering services. When conducting maintenance tasks, settled and float dust should be minimized by hosing down contaminated equipment prior to commencement of works.

What are the legislative obligations with regards to health records?

Health records with relation to lead should be kept for 30 years.

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